

APPENDIX F



TEXAS SYSTEM OF NATURAL LABORATORIES INC.

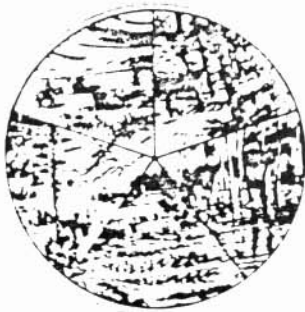
A RESOURCE FOR TEXAS AND THE NATION

CREDENTIALS

The Texas System of Natural Laboratories, Inc., (TSNL) is a Texas non-profit private corporation, with a 501(c)3 IRS determination, and has a current HEW Predetermined Indirect Costs Rate of 22% of Direct Costs for contracting purposes for federal funds.

TSNL was chartered in 1967 by Abner V. McCall, John C. Calhoun, and W. Frank Blair, acting as private citizens for the benefit of all public and private colleges and universities in Texas. Today these 144 academic institutions are the TSNL member institutions. Representatives from 61 schools operate TSNL in service for all. Abner V. McCall, J.D., President of Baylor University, today is Chairman of the Board for the thirteenth successive year.

Documentation of capability is available from TSNL Secretary-Treasurer Neverna Tsanoff Travis at the TSNL central offices in Austin, Texas.



TEXAS SYSTEM OF NATURAL LABORATORIES INC.

A RESOURCE FOR TEXAS AND THE NATION

PROGRESS REPORT: Texas System of Natural Laboratories, Inc., Land and Life Systems Encyclopedia for Texas

BY: Nevenna Tsanoff Travis, Secretary-Treasurer and System Coordinator, Laboratory Index Series, Project Director

DATE: March 26, 1979

Texas System of Natural Laboratories, Incorporated (TSNL) is a consortium of 61 Texas universities and colleges. These institutions operate TSNL as a private non-profit Texas corporation, of federal status 501(c)3, which, through its operation as a clearing house, serves all Texas general academic institutions (144 universities, colleges, community colleges, and junior colleges). Seed money for the clearinghouse are appropriated state trustee funds, Texas Coordinating Board contract.

TSNL's primary goal is to secure controlled use of lands for research and to put scientists and students on those lands for field work and ecological studies. Public lands are available for research, and many owners of private and industrial lands in Texas are generously cooperating with TSNL. The lands are being inventoried in a laboratory index series of publications. This encyclopedic inventory of accessible research lands is building interest statewide in field work among all Texas general academic institutions, facilitating their search for teaching and research plots.

Schools everywhere seek comprehensive environmental base line information to be used in various disciplines including the natural and social sciences, business, engineering, architecture, and planning. Experience is now showing that the availability of such comprehensive base line data is equally important to industry and government. Copies of TSNL publications are being placed in academic libraries, state depository libraries where possible and appropriate, and in secondary school libraries as requested. Copies are given to individual permit holders, faculty, and others as needed. Publications to date include:

1. Laboratory Index 1-74, Edwards Plateau/Balcones Escarpment-Blackland Natural Laboratory, Bell, Williamson Counties, 1974, 18 pages
2. Laboratory Index 2-74, Lampasas Cut Plain Natural Laboratory, Bell County, 1974, 18 pages
3. Laboratory Index 3-74, Gulf Coast Prairie Natural Laboratory, Galveston County, 1974, 18 pages
4. TSNL Bulletin: Volume 1, No. 1, 1975
5. TSNL Bulletin: Volume 1, No. 2, 1975
6. TSNL Review, Volume 1, No. 1, 1975
7. TSNL Laboratory Index Series 4-76, Hueco Tanks State Historical Park, El Paso County, 1976, 50 pages
8. TSNL Laboratory Index Series 5-76, Southern Hueco Mountains, El Paso County, 1976, 51 pages
9. TSNL Laboratory Index Series LIS-R-1-76, Gulf Coast Region, 36 Counties, Texas, 1976, 416 pages (1000 charts) Draft I, Section 1
10. International Base Line Data Coding System for Relating Regional Fundamental Knowledge Inventory records, Draft for Review, 1977, 236 pages
11. TSNL Laboratory Index Series LIS-R-1-78, 1,930 charts, Texas Gulf Coast 36 Counties, Algae, Mollusks, Vascular Plants (Hydrocharitaceae, Lamiaceae, Najadales, Poaceae, Scrophulariaceae), Human Ecology (Archaeology, 13 counties; Socioeconomics, 36 counties)

Publications in preparation include:

1. TSNL Laboratory Index Series LIS-R-1-79, Texas Gulf Coast 36 Counties, Meteorology (revised LIS-R-1-76), Vascular Plants (Euphorbiaceae, Solanaceae), Texas Fish, Archaeology (23 counties), Demography (revised LIS-R-1-76), Socioeconomics (revised LIS-R-1-76)
2. Six unit indexes in manuscript, 50-100 pages each, projected publication in 1979 as funding allows
3. Species profiles in manuscript and in drafting: wetland plants (93), other plants (52), crustacea (oysters, shrimp, 12), fish (600), birds (109), mammals (22)

Unit inventories, indexing a single research plot, are expensive to prepare and production lags behind the existing need. Therefore the TSNL emphasis has shifted toward regional indexing. The regional index provides a county-wide overview with footnotes, bibliography, an inventory of other research resources, and potential research topics. Ultimately, seven such regional inventory volumes, stored in the computers by county, species, and latitude/longitude, will become the published land and life systems encyclopedia for the whole state of Texas. Provision is being made to up-date and revise on an ongoing basis. Footnotes, bibliographies, and data systems references in these volumes will enable the students doing research at even the smallest community college to share the information resources of the great government and university research databanks, collections, and libraries through interlibrary loan.

TSNL's first regional index concerns 36 counties of the Gulf Coast. Draft I is the work of graduate student compilers. This work of the students is constantly being reviewed, revised, and added to by senior faculty. A partial draft was photocopied in February 1977 and given out to faculty and others for revision and review (LIS-R-1-76). In fiscal year 1978 under matching HUD-701 funds from the Governor's Office of Budget and Planning, and a Grant from the Caesar Kleberg Foundation for Wildlife Conservation, 1930 charts were developed (LIS-R-1-78). Charting was continued in 1978 with Kleberg Foundation moneys, and now in 1979 with a Grant from the Texas Coastal and Marine Council.

All the data compilations in the regional indexes are being designed for automation. Care has been taken to draft a master outline which is international in scope and compatible with the needs of planning, modeling, management, and fundamental research. It is intended to be used also as a communications medium between data systems of researchers worldwide. The final version of the master outline will have been the work of faculty and government experts, many of them recognized world authorities in their field of study. A programming design for reference by county, by latitude/longitude, and by species allowing maximum flexibility for interrelating categories is being developed at this time as a pilot project in cooperation with the Texas Natural Resources Information System, Systems General.

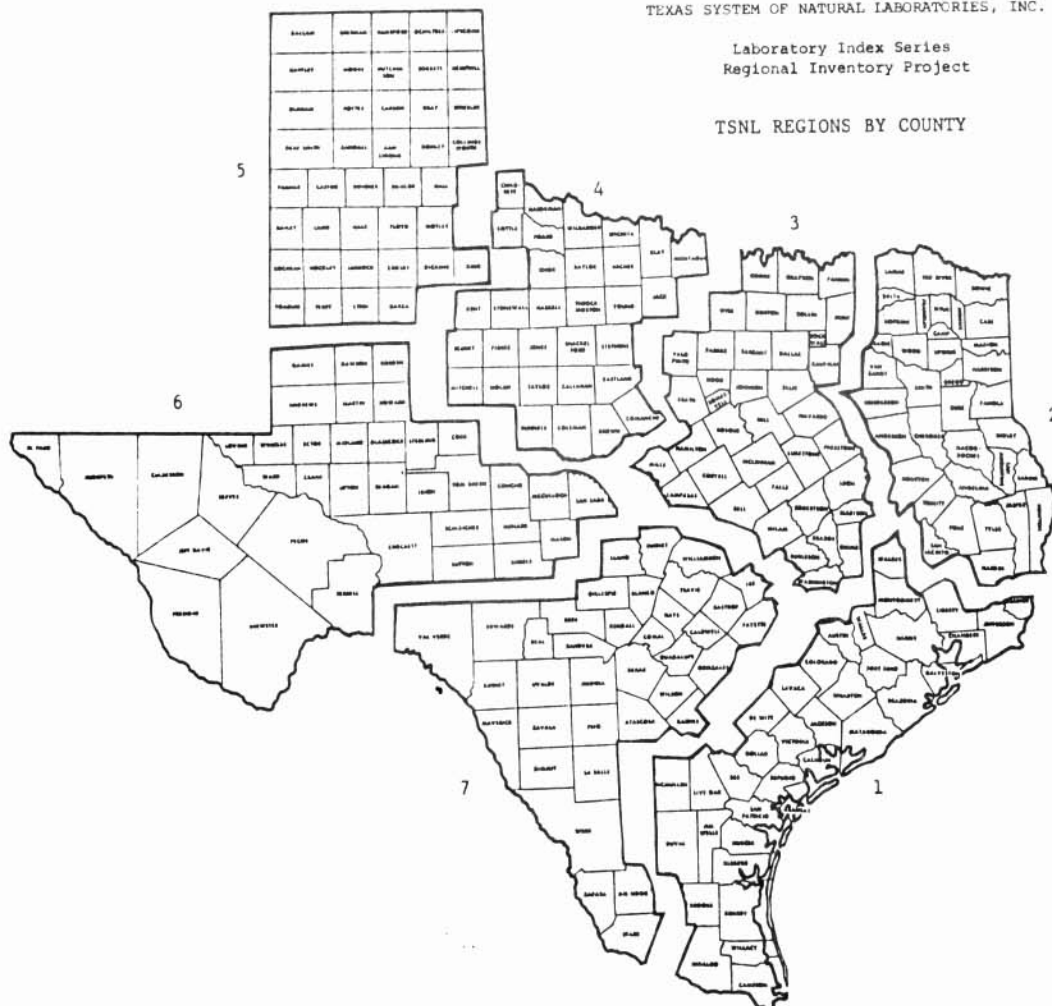
Usual activities in support of research needs of students and faculty are ongoing. TSNL was invited to give a poster session at the January 2 to 4, 1979, meeting of the American Society of Limnology and Oceanography in Corpus Christi. The regional Gulf coast atlases, and Laboratory Index Series pilot project computer maps attracted widespread favorable attention. For information concerning available natural laboratories write to Texas System of Natural Laboratories, Inc.

610 BRAZOS, SUITE 400 • AUSTIN, TEXAS 78701

TELS: (512) 477-4925, 477-4934, 444-4479

Laboratory Index Series
Regional Inventory Project

TSNL REGIONS BY COUNTY

1. GULF COAST

*Aransas (004)
Austin (008)
*Bee (013)
*Brazoria (020)
Brooks (024)
*Calhoun (029)
*Cameron (031)
*Chambers (036)
*Colorado (045)
DeWitt (062)
*Duval (066)
*Fort Bend (079)
*Galveston (084)
*Goliad (088)
*Harris (101)
*Hidalgo (108)
*Jackson (120)
*Jefferson (123)
*Jim Wells (125)
*Kenedy (131)
*Kleberg (137)
Lavaca (143)
*Liberty (146)
*Live Oak (149)
*McMullen (156)
*Matagorda (161)
*Montgomery (170)
*Nueces (178)
*Orange (181)
*Refugio (196)
*San Patricio (205)
*Victoria (235)
*Walker (236)
Waller (237)
*Wharton (241)
*Willacy (245)

* County with natural laboratories available through TSNL

2. EAST

*Anderson (001)
*Angelina (003)
*Bowie (019)
Camp (032)
*Cass (034)
*Cherokee (037)
Delta (060)
*Franklin (080)
*Gregg (092)
*Hardin (100)
*Harrison (102)
*Henderson (107)
Hopkins (112)
*Houston (113)
*Jasper (121)
Lamar (139)
*Marion (158)
*Morris (172)
*Nacogdoches (174)
*Newton (176)
*Panola (183)
*Polk (187)
*Rains (190)
*Red River (194)
*Rusk (201)
*Sabine (202)
*San Augustine (203)
*San Jacinto (204)
*Shelby (210)
Smith (212)
Titus (225)
*Trinity (228)
*Tyler (229)
*Upshur (230)
*Van Zandt (234)
*Wood (250)

3. NORTH CENTRAL

*Bell (014)
*Bosque (018)
Brazos (021)
*Burleson (026)
*Collin (043)
*Cooke (049)
*Coryell (050)
Dallas (057)
Denton (061)
Ellis (070)
*Erath (072)
Falls (073)
*Fannin (074)
*Freestone (081)
*Grayson (091)
*Grimes (093)
*Hamilton (097)
*Hill (109)
*Hood (111)
Hunt (116)
Johnson (126)
*Kaufman (129)
*Lampasas (141)
*Leon (145)
*Limestone (147)
*McLennan (155)
*Madison (157)
*Milam (166)
*Mills (167)
*Navarro (175)
*Palo Pinto (182)
*Parker (184)
*Robertson (198)
*Rockwall (199)
*Somervell (213)
Tarrant (220)
Washington (239)
*Wise (249)

4. WEST CENTRAL

*Archer (005)
*Baylor (012)
*Brown (025)
*Callahan (030)
*Childress (038)
*Clay (039)
*Coleman (042)
*Comanche (047)
*Cottle (051)
*Eastland (067)
*Fisher (076)
*Foard (078)
*Hardeman (099)
*Haskell (104)
*Jack (119)
*Jones (127)
*Kent (132)
*Knox (138)
*Mitchell (168)
*Montague (169)
Nolan (177)
*Runnels (200)
*Scurry (208)
*Shackleford (209)
*Stephens (215)
*Stonewall (217)
*Taylor (221)
*Throckmorton (224)
*Wichita (243)
*Wilbarger (244)
*Young (252)

5. PANHANDLE

*Armstrong (006)
*Bailey (009)
*Briscoe (023)
*Carson (033)
*Castro (035)
*Cochran (040)
*Collingsworth (044)
Crosby (054)
*Dallam (056)
*Deaf Smith (059)
*Dickens (063)
*Donley (065)
Floyd (077)
Garza (085)
*Gray (090)
*Hale (095)
*Hall (096)
*Hansford (098)
Hartley (103)
*Hemphill (106)
*Hockley (110)
*Hutchinson (117)
King (135)
*Lamb (140)
*Lipacomb (148)
Lubbock (152)
Lynn (153)
*Moore (171)
*Motley (173)
Ochiltree (179)
*Oldham (180)
*Parmer (185)
*Potter (188)
*Randall (191)
*Roberts (197)
*Sherman (211)
*Swisher (219)
*Terry (223)
*Wheeler (242)
*Yoakum (251)

6. WEST

*Andrews (002)
*Borden (017)
*Brewster (022)
*Coke (041)
Concho (048)
*Crane (052)
*Crockett (053)
*Culberson (055)
*Dawson (058)
Ector (068)
*El Paso (071)
*Fayette (075)
*Gaines (083)
Glasscock (087)
*Howard (114)
*Hudspeth (115)
*Irion (118)
*Jeff Davis (122)
*Kimble (134)
*Loving (151)
McCulloch (154)
*Martin (159)
Mason (160)
Menard (164)
*Midland (165)
*Pecos (186)
*Presidio (189)
*Reagan (192)
*Reeves (195)
San Saba (206)
Schleicher (207)
*Sterling (216)
Sutton (218)
*Terrell (222)
*Tom Green (226)
*Upton (231)
*Ward (238)
*Winkler (248)

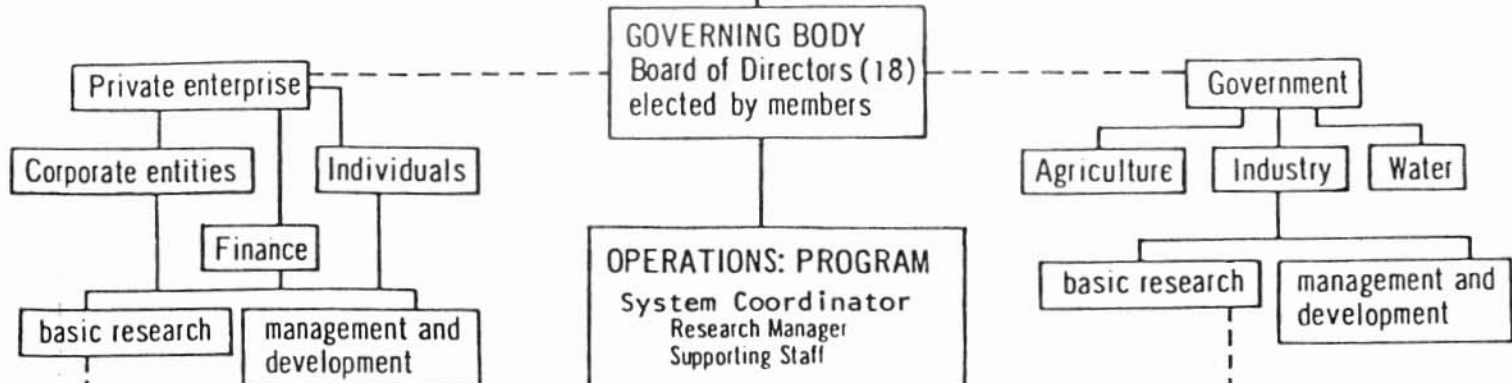
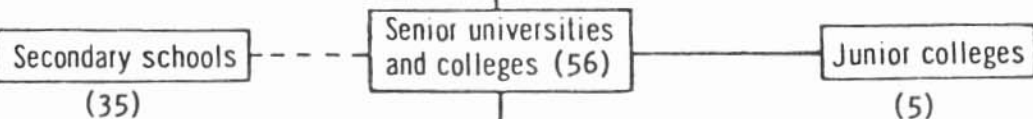
7. SOUTH CENTRAL

*Atascosa (007)
*Bandera (010)
*Bastrop (011)
*Bexar (015)
*Blanco (016)
*Burnet (027)
Caldwell (028)
Comal (046)
*Dimmit (064)
*Edwards (069)
Fayette (075)
*Frio (082)
*Gillespie (086)
*Gonzales (089)
Guadalupe (094)
*Hays (105)
Jim Hogg (124)
Karnes (128)
Kendall (130)
*Kerr (133)
Kinney (136)
*La Salle (142)
*Lee (144)
Llano (150)
*Maverick (162)
*Medina (163)
*Real (193)
*Starr (214)
*Travis (227)
*Uvalde (232)
*Val Verde (233)
Webb (240)
*Williamson (246)
*Wilson (247)
*Zapata (253)
Zavala (254)

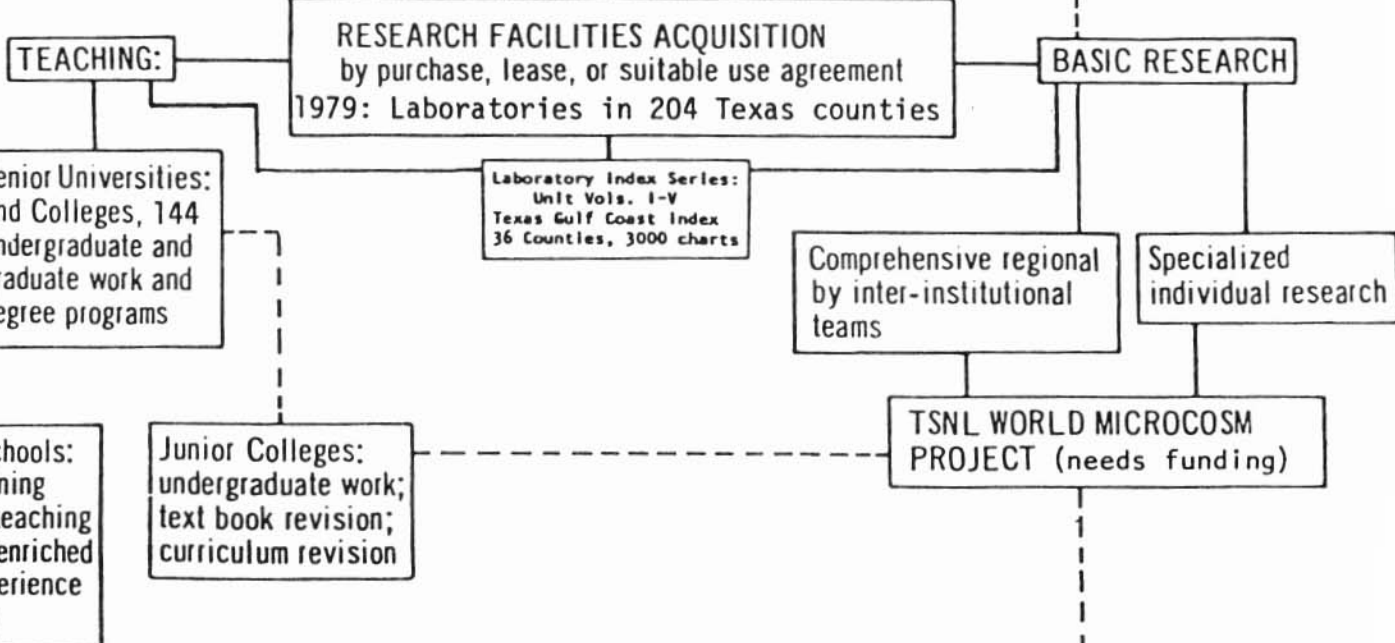
OPERATIONS CHART, 1978-1979

TEXAS SYSTEM OF NATURAL LABORATORIES, INC., (TSNL)

SERVING: Texas Universities and colleges and their associates



PROGRAM: for Members(and associates)



Key

----- Sponsorship or invitation.

SENIOR COLLEGES AND UNIVERSITIES, 1972-1973

ENROLLMENT

- Less than 5,000
- 5,000 - 9,999
- 10,000 - 14,999
- 15,000 - 19,999
- 20,000 - 34,999
- Over 35,000

Legend:

- State
- Planned or under Construction
- Private

Scale: 0 10 20 30 40 50 Miles

Source: The Coordinating Board, Texas College and University System, Institution of Higher Education in Texas, 1972-73, September, 1973.

● State

● Private

ENROLLMENT

- Less than 1,000
- 1,000 - 2,999
- 3,000 - 5,999
- 6,000 - 10,000
- 11,000 - 20,000

● State
● Private

0 100
Miles